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August 28, 19894

TO:

Jim Smith, Coordinator

FROM:

Tom Tetting, Senior Geologist

RE:

Inspection of New Harmony Project; Peden Engineering and Subsequent Determination of Operation Classification, PRO/02/1/007, Iron County, Utah

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The initial notice of intention to commence mining operations for the New Harmony Project was received by the Division July 30, 1984. The combination of exploration techniques employed by the company at that time included road building, backhoe excavations and sampling. The notice indicated less than 3000 tons of coal, carbonaceous sediments and alluvial gravels would be removed from the private owned site for purposes of testing for gold. Due to the nature of the combined mining - exploration plans involving removal of a percentage of coal as well as other sediments a field trip was scheduled at the earliest opportunity. Additional information was requested from the company. Contact with Tom Abbay at the Wasatch National Forest Service (FS) headquarters was also made as the project location is accessed on FS road and is surrounded by FS managed land.

Additional information received from the company on August 1, 1984 indicated that the entire program would disturb less than two acres and had approval from the land owners.

I met with Peden Engineering representatives Steve Hicken and York Jones in Cedar City on August 8, 1984. Bill Shehan from the Forest Service office in town spent several minutes filling the group in on the concerns of the District Ranger as they related to continued development.

An inspection of the site yielded the following information:

- The proposal should be considered as submitted, however, alternate plans may arise:
 - a. The storage site may actually be used as a mill site and a small facility could be constructed there to avoid haulage costs of the material to California.

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- b. Neither plans, the mill nor the processing in California could take place if Utah International leases their millsite in Iron Springs to Peden Engineeering.
- 2. The coal beds on-site, which are upturned due to the intrusive contact to the west, are a combination of transtional and gradational sediments, including coal, shaley coal, carbonaceous mudstones, altered lignite or humate, sandy shales, limestone, coguinoid limestone and sandstone. Most of the coal and noncoal - like material under consideration for mining maybe classified as "coal smut" according to the AGI definition (highly weathered outcrop). At some of the exposures, on the site, the coal appears to have been altered by the contact metamorphism. Although some flowage has occurred locally, it is not consistant over the property and the coal beds are only slightly affected generally. Determination of coal quantity within the site area is very subjective due to the gradational nature of the thinly bedded seams. Perhaps on the "lean" side, the company's measurements are as useful as may be expected and are sufficient. A cubic foot composite-weight sample of the represented coal seams was taken by the company while on site. Accurate results should be provided of the final measurement. (AGI requires a rock to contain more than 50% by wt. and more than 70% by volume of readily combustible carbonaceous material).
- The new roads, trenches, excavations and disturbances which the company has already made may already be over the two acre limitation which the Division uses to define mining operations. The l inch to 500 feet map of the trenches provided by the company on site should be used to compute total disturbance.
- 4. The question of access suitability to the site through the town of New Harmony, over the Washington County road and the Forest Service road remains to be approved for the project. The company assured me that approval would be received from each concern before proceeding with the project. An August 16, 1984 letter from the company indicated that arrangements were being carried out to comply with all requests.
- 5. The likelyhood of gold or other precious metals being contained in the formations under examination is speculative. At least two companies have performed assays on the material with varying results. My opinion is that if gold were present; it would be of a primary deposition

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occurrence; be several microns in size; and would probably also occur in other beds of a similar time correlative stratigraphic interval found within the region. I do not believe the company is out to mine coal. Therefore, based upon the information presented and acquired I recommend that; certain requests be made of the company for information needed as outlined in 2, 3 and 4 above; the Division proceed with permitting of the proposal as suggested in my memo of July 30, 1984; and consider the likely possibility that the opperation will fall under the two-acre exempted status designation of the Mined Land Reclamation Act.

jvb cc: Tom Abbay D. Hedberg 95090-6